

Statement of Problem

The Massachusetts Department of Public Health analyzes substances suspected to be illicit drugs, for local, state and federal law enforcement, in accordance with Chapter 111, Section 12, of the Massachusetts General Laws. Qualitative identification of narcotics, common street drugs, and pharmaceuticals is conducted by the Division of Analytical Chemistry, Forensic Drug Laboratories in both the Jamaica Plain (Boston) and Amherst facilities. The laboratories employ 4 evidence officers and 15 analysts and 2 laboratory supervisors. Analysis of evidence is performed in accordance with the guidelines established by the Office of National Drug Policy, Scientific Working Group for the Analysis of Seized Drugs using a variety of visual, microscopic, wet chemical, chromatographic and spectroscopic techniques.

As law enforcement efforts have intensified related to the possession and sale of illegal drugs, sample submissions to the laboratories have risen steadily. In calendar year 2010, the Forensic Drug Laboratories received 17,816 specimens for testing when coupled with the existing backlog; this exceeded the analytical capacity of the combined laboratories. Laboratory staffing levels and fiscal appropriations remained constant despite the increasing work load. Recent fiscal uncertainty has worsened the situation since vacant positions were eliminated to balance dwindling budgets. In addition, the complexity of sample submissions; i.e., higher number of cases involving drug trafficking and the analytical challenges presented by the analysis of crack cocaine, GHB and ketamine, further exacerbate the already stressed system. The current sample backlog is 2941 specimens with a 53 day turnaround time. Efforts towards reduction of sample turnaround time have been hampered by the dramatic increase in court room testimony by drug analysts following US Supreme Court ruling in the Melendez-Diaz case.

Program Description/Executive Summary

In response to three of the critical priorities articulated in the United States Department of Justice 2011 solicitation: *Paul Coverdell Forensic Science Improvement Grants Program*, the Massachusetts Department of Public Health proposes the following program:

- *to improve the timeliness and quality of forensic drug testing,*
- *to reduce the testing backlog and*
- *to train, assist and employ forensic laboratory personnel to help eliminate the backlog..*

To accomplish these goals, the Massachusetts Department of Public Health proposes to continue funding one analytical chemist, Hevis Lleshi in the Boston laboratory. Maintaining this position is essential to sustain and improve the timeliness of analysis and to continue progress towards reducing the sample backlog. A small amount of overtime funding is proposed to further expedite sample analysis and reporting.

The Massachusetts Department of Public Health is requesting \$65,000 to implement this project. Funds would be used to fund the salary for one chemist and provide overtime funding for analytical staff.

Program Goals, Objectives and Performance Measures

The goals of the program are to expedite laboratory testing of drug by developing additional analytical capacity to maximize sample throughput. Turnaround time and backlog reduction are an easily quantifiable measures that can be used to evaluate the efficacy of the program through the Laboratory Information Management System (LIMS), as all analyses performed by a given analyst are tracked and stored in the computer application.

Successful performance would be gauged by the following measures:

- Maintaining a fully trained, skilled analyst to test drug seizures,
- Analyzing 2000 items seized in drug prosecutions,
- Testifying as required in criminal prosecutions,

It is expected that this maintenance of analytical capacity will result in a positive impact on the sample backlog and analysis turnaround time.